

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

#3371
OK

October 8, 2009

TO: Internal File

THRU: Daron Haddock, Title V Coal Program Manager *DRH*
Priscilla Burton, En Sci III, Soils, Team Lead *PWB hm sbs*

FROM: Peter Hess, En Sci III, Engineering / Bonding *PHH hm sbs*

RE: Permit Application, Alton Coal Development, LLC, Coal Hollow Mine,
C/025/0005, Task ID #3371

SUMMARY:

Alton Coal Development, LLC submitted the official response to the deficiencies aired within the review prepared by the Division as Task ID # 3100 (date of response, March 30, 2009) on August 27, 2009.

This memo will address the adequacy of the responses submitted as Task ID # 3371.

TECHNICAL ANALYSIS:**OPERATION PLAN****SPOIL AND WASTE MATERIALS**

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Excess Spoil

Technical Analysis TID # 3100, (pages 115 and 116) generated the following deficiencies;

R645-301-514.100 and -514.120

“The Applicant must commit to regular inspections of lift thickness and compaction density during placement and compaction of fill materials. The Applicant must provide confirmation that compaction requirements meeting the minimum 85 % Proctor standard are being met as designated within the Taylor Geo-Tech slope stability analysis for spoil fill areas. •The inspection report must include a description of the test method that was used to determine that adequate compaction is being obtained as the fill is being placed. •The inspection report must include all other standard engineering test methods used to determine that a minimum long term static safety factor of 1.5 can and will be achieved. •The report must include any appearances of instability, structural weakness, and other hazardous conditions.”

R645-301-535.100

“This rule requires that the fill be designed. The Applicant must commit to meeting all of the recommended earthwork specifications contained in Appendix F for spoil fills and impoundment embankments. This can be done by reference to the Appendix in Chapter 5, Section 528.310. • Rather than stating that “excess spoil will be...concurrently compacted as necessary to ensure mass stability and to prevent mass movement during and after construction, “ the Applicant must specify how the Professional Engineer will confirm that adequate compaction requirements (Proctor standard) will be met (i.e., by nuclear density examination, or other means) as part of the required periodic inspections mandated under R645-301-514.100, 514.311, and R645-301-514.120.”

Analysis:

The Permit Applicant responded with the following (Task ID # 3371) on August 28, 2009;

“In the MRP, ACD made the commitment to comply with the detailed inspections standards described for excess spoil in R645-301-514.100 and 514.120. These standards were not specifically listed in the MRP, only a commitment to comply with the regulations (Page 5-5, Chapter 5, Volume 3). Therefore, ACD has revised the MRP to specifically list each regulation in R645-301-514.100 through 514.120 to make clear the commitment to meet these inspection standards. In addition, text has also been added to this section clarifying that compaction testing will be performed as part of the inspection process and will be included in the inspection reports.

Review of page 5-5, Chapter 5, Volume 3 of the revised Coal Hollow MRP (Task ID 3371) contains the response under section 514.100, Excess Spoil.

In the Permit Applicants initial / unofficial response to the Division's TID # 3100 Master Technical Analysis, (PA response received June 16, 2009), the PA indicated that the deficiency aired by the Division was incorrectly prepared under the requirements for inspection of excess spoil fills. The response received on August 28, 2009 attempts to address the requirements aired under R645-301-514.120 as inspections required for excess spoil piles.

The Divisions concern relative to adequate inspections of backfilled spoil in coal recovery pits is relevant to spoil being placed as sub-base for the reconstruction of Kane County road # 136, and the Swapp road.

County road #136 is a Class "B" road, and it will be required to transport vehicle weights which are heavier than those which will be driven on the Swapp road. All embankments, which will be constructed as part of the County road #136 reconstruction, must have a minimum static safety factor of 1.3.

The Permit Applicant has added text to the MRP indicating *"fill compaction will be periodically field tested as directed by the qualified registered professional engineer inspecting the spoil fills. A description of the test method and the test results will be provided to the Division as part of the quarterly inspection reports."* The Permit Applicant commits to meeting a minimum Proctor standard of 85 % for the fill areas being inspected by the qualified registered professional engineer. A 90 % minimum Proctor is the generally established standard for fill areas. However, if the registered professional engineer conducting the inspections of the replaced fill areas is willing to accept the 85 % Proctor and ensure that the minimum static safety factor requirements for fill areas will be met, the Division will accept an 85 % Proctor standard. A standard Proctor of 90 % will be met for sedimentation pond dikes / embankments.

R645-301-514.120 requires that certified copies of each inspection conducted of fill areas be provided to the Division promptly after each inspection. Therefore, the current commitment in the revised MRP (page 5-6, Chapter 5, Volume 3) does not meet the requirements of R645-301-514.120.

The review of the Permit Applicants response to **R645-301-535.100** (as identified in Task ID # 3100 MTA) indicates that the recommendations which were made in **APPENDIX F, EARTHWORK SPECIFICATIONS** be included into the proposed mining and reclamation plan. ACD / LLC has added the recommendations from Appendix F to Section 528.310, Chapter 5. Text has also been added which adds clarification about the compaction testing method.

Findings:

The Permit Applicants commitment to field test the compactions of the fill areas associated with the backfilled coal reclamation pits is adequate to address the deficiency previously aired under R645-301-514.120.

The response meets the requirement of the R645 Coal Rule and adequately addresses the two deficiencies previously identified.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

R645-301-521.141

Technical Analysis TID # 3100, (page131) generated the following deficiency;

“Restated from Task 2910, *‘the Applicant must provide “a detailed timetable for the completion of each major step in the reclamation plan”*”.

In the first two permit applications, ACD / LLC requested that the Division allow a two year period of time to exist between the end of coal recovery activities from Pits 28, 29 and 30 and the initiation of reclamation activities in this same area. ACD stated that this defined length of time was necessary in order to obtain additional Federal leases located to the west of the proposed permit area. The Division has responded to this request during the two previous technical analyses denying the request for variance.

Analysis:

Alton Coal Development responded in the following manner on August 28, 2009 (Task ID # 3371);

“This two year time frame is requested as a worst case scenario should there be delays in the process of modifying the mine permit to include the Federal coal reserves”. “ACD anticipates a coal lease sale within the first year of operation... therefore the ownership of the federal coal will be decided early in the project”. “...Making the switch to the alternative reclamation plan simple, should ACD not be the successful bidder.” According to ACD, the draft EIS for the project is complete except for the air modeling. This is expected to be complete within two months (from August 28, 2009).

ACD states in the August 28, 2009 response that the two year time frame would be a post-temporary cessation notification to allow the Division time to process the significant

revision necessary to add the Federal coal leases procured to the currently proposed Coal Hollow permit area.

Alton Coal Development has added text to Section 521.141 (See Volume 3, Chapter 5, page 5-11, Task ID # 3371 response received August 28, 2009) to clarify that it must at least acquire the federal coal leases adjacent to the currently proposed Coal Hollow permit area before mining is complete in Pit 30 in order for the Division to approve the temporary cessation status.

This clarification supports justification as to why the Division should approve a temporary cessation period extending for no more than two years beyond the completion of coal extraction activities in Pit 30. However, the Permit Applicant must understand that the Division cannot approve a temporary cessation status for a mining operation that has yet to be constructed.

The Permittee (Alton Coal Development) will need to apply for a temporary cessation status by meeting the requirements of R645-301-515.320 at the time when it is known that coal recovery will be idled for 30 days or more, or as soon as it is known that temporary cessation will extend beyond 30 days. Alton Coal Development must address the requirements of R645-301-515.322 and R645-301-516 at the time when the temporary cessation status is applied for through the Division.

Findings:

The Division understands that a period of two years under Temporary Cessation status is justifiable to leave the final pits in the currently proposed Coal Hollow permit area unreclaimed until additional Federal leases (assuming procurement by ACD / LLC) can be permitted and added to the currently proposed DOGM permit.

However, the Division cannot approve a temporary cessation status for a mining operation, which has yet to be constructed. The Permittee must address the requirements of R645-301-515.320, R645-301-515.322, and R645-301-516 when the Permittee realizes that coal production will cease for thirty days or more.

COAL RECOVERY

Regulatory Reference: 30 CFR 817.59; R645-301-522.

Analysis:

The deficiency identified in the Task ID # 3100 Master Technical Analysis stated the following;

"The Applicant must justify why they do not intend to recover coal reserves between the highwall and the edge of the proposed permit boundary (by augering or other methods) in order to maximize coal recovery and effectively utilize the resource."

The Permit Applicant responded with the following in the Task ID #3371 application;

- 1) There is 1,207,000 tons of coal between the highwalls and the proposed permit boundary for the Coal Hollow Mine. Of this, 678,000 tons will be recovered by surface mining methods along the west and southern permit boundaries, as mining in those directions proceeds through the Federal leases. The Permit Applicant has added text to Section 522 of the PAP to clarify this coal recovery.
- 2) The recovery of the remaining 529,000 tons would be affected by the low efficiency / production rates of auger mining. The low production rates of augering would affect the efficiency of the overburden removal process / coal recovery process of the surface mining operation.
- 3) The geologic conditions and the structures located along the eastern permit boundary would only allow a 40 % recovery of coal reserves from beneath those highwalls. This coal volume (112,000 tons), does not justify the capital expenditure for the augering equipment and the mobilization cost. Also, there will not be any opportunity to utilize the augering method of coal recovery in the adjacent Federal coal reserves until the final pit.

The Permit Applicant has provided adequate justification as to why additional coal recovery from beneath the Coal Hollow highwalls will not occur.

Findings:

The Permit Applicants response adequately addresses the Division's previous concern and the requirements of R645-301-522, Coal Recovery.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

NARRATIVES, MAPS, AND PLANS

R645-301-542.100, R645-301-121.200; Backfilling and Grading

The Division identified the following deficiency during the Task ID # 3100 Master Technical Analysis document preparation;

"A timeframe for completing rough backfilling and grading is provided on p. 5-65 which states the following: "In both scenarios (Preferred and Alternate), rough backfilling and grading operations will follow coal removal by not more than 60 days or 1500 linear feet."

Text on Page 5-66 states, "mined areas will be backfilled and graded within 180 days following coal removal, or 1500 feet of the active coal removal face." The information in the two aforementioned paragraphs conflicts. However, the information may not conflict if the Permit Applicant means to say that the backfilling and grading will be completed in 60 days of coal removal and ready for topsoiling and seeding within 180 days following coal removal.

If the Division's interpretation of these two statements is accurate, please make the necessary corrections to the statement on p. 5-66.

Analysis:

The Permit Applicants response received as Task ID # 3371 on August 28, 2009 indicates that the statement made on page 5-66 (Chapter 5, Task ID # 3100) should have also said that "mined areas will be backfilled and graded within 60 days following coal removal, or 1500 feet of the active coal removal face", making it identical to the statement made on the previous page (page 5-65). Thus, the Division's interpretation of the previous conflicting statements was incorrect, but the Permit Applicant has corrected the typographical error on page 5-66 in the revised application (See page 5-67, last line on the page, revised 6/19/09) in Chapter 5, Section 553.

Findings:

The Permit Applicant's response corrects a text error previously identified on page 5-66. All pages of text now address the minimum regulatory requirements of **R645-301-542.100**.

R645-301-542.100; Detailed Timetable of Each Major Reclamation Step

The Division identified the following deficiency during the Task ID # 3100 Master Technical Analysis document preparation;

"The Applicant will provide a timetable detailing when the rough backfilling and

grading of Pits 2 and 3 will be initiated. This reclamation step will be initiated before coal recovery has been completed in Pit 6 (approximately 1500 feet from northern edge of Pit 2)."

Analysis:

The Permit Applicant has submitted revised / updated text in the Task ID # 3371 application (See Chapter 5, page 5-68, Section 553, Backfilling and Grading) which provides needed clarification to the reclamation timetable required by R645-301-542.100.

The response states, "in the initial mining areas, spoil from Pit 2 and part of Pit 3 will be permanently placed in the excess spoil area and Pit 1. Part of Pit 3 and all of Pit 4 spoil is placed as backfill in Pit 2, beginning the sequential pit backfilling process. By the time coal recovery is complete in Pit 6, rough backfilling and grading will be complete in Pits 2 and 3."

Findings:

The submitted information provides the commitment needed to reclaim the initial coal recovery areas, and provides sufficient information to meet the requirements of **R645-301-542.100**.

The Task ID # 3100 Master Technical Analysis identified the following deficiency during the preparation of that document;

R645-301-553; BACKFILLING AND GRADING

"The Division can not support the variance from the 60 day/1,500 feet requirement for backfilling and grading based upon the supposition of acquiring the adjacent federal leases (which have not yet been made available).

The variance request should be removed from the plan.

The Division recommends that ACD apply for this variance ninety days before completion of coal recovery in Pit 24 and should include timely information relative to the procurement of any adjacent Federal coal leases."

"The current plan shows recovery of coal from Pits 2 through 8 covering a north / south distance of 2200 feet, as well as an additional 750 feet on an east / west direction from Pits 9–12 (all coal recovery during Year 1). This plan is double the length allowed in R645-301-553. This plan is deficient. In accordance with the requirements of R645-301-553, Backfilling and Grading, the Applicant must revise the current plan for backfilling, grading, topsoiling and revegetating stated on Page 5-66 such that it meets the requirements of R645-301-553. The

Division requires that Pit 4 rough backfilling and grading be completed before overburden removal is initiated in Pit 9. Pits 1, 5, 6 and 7 must be completed (rough backfilling and grading) before mining in Pit 13 is initiated."

Analysis:

The Permit Applicant responded with the following in Task ID # 3371 (August 28, 2009 response);

This deficiency does not correctly describe the mine plan as provided in the MRP. Tables are provided in Section 553 that show the backfill capacity of the pits in relation to the overburden (spoil) for each major step in the mining process. These tables show that all backfill capacity that is available is utilized when mining Pits 1-15. The Division makes the following statement on page 139 of the TA: "Overburden from pits 1-8 will be removed and stored, then used for the reclamation of those pits".

The Permit Applicant's response states, "this statement is not accurate based on the plan provided. The 2.7 million LCY excess spoil pile is only utilized to create a large enough open pit area to accommodate BOTH mining and backfilling which allows for the contemporaneous reclamation process to begin. Once this step is accomplished by placing the overburden (spoil) from Pit 1, Pit 2 (boxcut) and part of Pit 3 into the excess spoil pile, the overburden (spoil) from the subsequent pits is immediately placed into the previously mined pits as backfill as it is removed." ... "The spoil is always immediately placed into the previous pits once the necessary pit area is open to accommodate the backfilling process."

Drawing 5-17 shows how closely the backfill follows behind the active coal face. This drawing shows the stage at which Pit 8 is complete. At this point, Pits 1-6 are backfilled and graded as shown by the contour surface in the drawing. In the next major step, Drawing 5-18 shows the backfill status once Pit 15 is complete. At this point in the process, there is almost insufficient backfill available to contain all the spoil. Pits 9 through 14 are backfilled at this stage leaving just enough working space for the removal of coal in Pit 15.

The Permit Applicant states that "the backfilling process in Pits 1 through 15 will not only meet the standards required by R645-301-553 but will at times follow the active coal face by as little as a hundred feet. The pits are being continuously backfilled as part of the mining process and the major steps are shown in 5-17 and 5-18 along with a table in Section 553 which shows the backfill capacity verses spoil".

The response submitted by the Permit Applicant provides additional information, which further clarifies that it is the Permit Applicants intent to meet the requirements of R645-301-553 during the coal recovery and reclamation activities associated with the Coal Hollow Mine.

Findings:

The Permit Applicant has provided additional information which clarifies for the Division the sequencing versus timing of the burden removal / coal recovery / backfilling and grading and revegetating of the proposed Coal Hollow Mine permit area.

Section R645-301-553 of the Coal Hollow Mine permit application package meets the minimum regulatory requirements of the R645 Coal Mining Rules.

RECLAMATION PLAN

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

Reclamation

Retention

The Task ID # 3100 Master Technical Analysis identified the following deficiency during the preparation of that document;

R645-301-542.600

“Maps and narrative in the application must describe reconstruction of County Road 136 to its original alignment as requested by the County.

The application must provide a drawing and specifications for Option A described in the Amended Grant of Easement and Assignment Amendment for County Road K3900 found in Appendix 1-7.

Drawing 5-22C illustrates the reclaimed road across Pugh property to the boundary with the USFS. This approximates the alignment of K3993, which was temporarily closed during mining. The Applicant must document this re-alignment and re-construction of K3993 with the County.”

Analysis:

Task ID #3371 contains revised / detailed design change drawings for the Class "B" Kane County road # 136 (See re-submitted Drawing #'s 5-22E, 5-22F, 5-22G, and 5-22H) which is to be re-constructed through the backfilled coal recovery areas of the Coal Hollow Mine. The re-construction will occur concurrently with the final reclamation of the south end of the Coal Hollow Mine (currently proposed DOGM permit area / no Federal leases obtained). K3900 (# 136) will be re-constructed on the approximate alignment of the original location of the road. This re-construction will occur during Year 4; this time frame objective is suggested based on the fact that ACD will not apply for a temporary cessation status to permit adjacent Federal leases.

Drawing 5-22H has been added to the PAP to provide the requested detail for Option A, as described in the Amended Grant of Easement and Assignment for County Road K3900 (Kane County road # 136).

Drawing 5-22C (as submitted in the Task ID # 3100 application) contains plan, cross section and a longitudinal gradient for K3993. K3993 is the road providing access to the post-mining water well (24 foot width to the east Pugh property junction from K3900 / 12 foot wide road providing the access to the east Pugh property). According to the Task ID #3371 response, K3993 will be reconstructed along the same alignment, which exists at the present time.

ACD has an agreement in place with Kane County (See Appendix 1-8) (See Task ID #3371 Permit Application Package), which requires that K3993 be re-established in conditions similar to the pre-mining conditions. The road specifications shown on Drawing # 5-22C will meet these requirements for reconstruction.

The Task ID #3100 Master Technical Analysis identified the following deficiency during the preparation of that document;

R645-301-527.250 and R645-301-534.200, R645-301-512.250, Design and Reconstruction of Roads.

"The Applicant must provide a geo-technical analysis of the spoil materials associated with the Tropic Shale and alluvium for use as sub-grade material as part of the re-construction design of all post mining roads within the coal recovery area. A Utah professionally certified civil engineer specializing in highway construction must perform the analysis for the two roads to be reconstructed on fill:

- 1) The Class "B" Kane County road #136 which must be capable of handling the*

heaviest vehicle weights.

2) The Swapp Ranch access road (shown in both reclamation scenario drawings, Dwg 5-35 and Dwg. 5-37 and having the same specifications as the Water Well Road ((K3993) (Dwg. 5-22 D)).

The application must include the results of the geotechnical analysis and any resulting design standards for road construction required to make the sub-grade materials stable. If the Permit Applicant cannot provide adequate geotechnical confirmation or Kane County cannot achieve the design standards necessary to ensure that all post-mining roads to be reconstructed on spoil will be stable, and then the Permit Applicant must consider other options, in co-operation with Kane County.

Analysis:

APPENDIX 5-1 is the slope stability analysis provided by Taylor Geo-Engineering for the spoil area slopes and the impoundment embankments, which will be constructed for the Mine. These analyses required testing of the tropic shale materials (clay material, silty sand, rocks, and shale) which make up the overburden material associated with the Coal Hollow Mine by the geotechnical consultant. That information was necessary to conduct the stability analyses for the spoil pile embankments and the sediment pond containments to ensure that the submitted designs were capable of meeting the minimum static safety requirements established in the R645 Coal Mining Rules.

The Permit Applicant provided a letter from a consulting engineer who is experienced in highway construction. Mr. William E. Spitzenberg, a registered professional engineer in the State of Utah provided the following on March 27, 2009;

- 1) Mr. Spitzenberg reviewed the laboratory analysis of the spoil material tested by Taylor Geo-Engineering (clay material, silty sand, rocks, and shale) and determined that "this mixture of material is suitable as backfill for the private roads (i.e., the Swapp Ranch access road) within the mining area.
- 2) Mr. Spitzenberg also stated the following; "the reconstruction of Kane County road #136 (K3900) will need to meet the following Kane County criteria within the County Road ROW where the mining occurs:
 - a. The backfill material is to be compacted at 8" lifts 8 feet below the roadway cross section to a 95 % maximum dry density as measured by ASTM (D 2922 2937 2167 1556).

- b. The moisture content during compaction shall be two to five percent above optimum for this fine-grained material.

This will meet the county requirements for a Class "B" subgrade and help minimize settling for the new roadway", as stated in Mr. Spitzenbergs letter.

Mr. Spitzenberg revised his design and Drawings 5-22E, 5-22F, 5-22G, and 5-22H to reflect the required changes for K3900.

The letter provided by Mr. Spitzenberg (Boss Engineering and Surveying, Pleasant Grove, Utah) received a Utah professional engineers certification on July 27, 2009.

K3900 is a Class "B" road and it has a 24-foot width surfaced with 6 inches of gravel.

The road designated as K3993 (water well access road and access to the east Pugh property) has a 24-foot width (surfaced with three inches of one inch minus road gravel) to the water well. Plan, cross-section and gradient profiles are shown on Drawing 5-22D.

The reconstructed road from the water well junction to the Pugh property is also included under Kane County road #K3993, although it has a twelve foot travel width (as determined from cross-section 5-22C) surfaced with three inches of 1 inch minus gravel.

Plan / alignment, cross-section and gradient profiles for the east Pugh property access road are depicted on Drawing #5-22C.

As all of K3993 is a County road, which is to be re-constructed on backfilled spoil. The Division assumes that all Kane County required criteria for sub-base construction will be similarly applied to this re-construction, i.e., 8 inch lifts below the roadway cross-section to an 8 foot depth, compaction to a 95 % maximum dry density as measured by the aforementioned ASTM method. Moisture content during compaction requirements is also assumed as necessary.

The Division notes that all Kane County sub-grade requirements are based on a 95 % maximum DRY density, and that the submitted P.E. certification of these County road designs are all based on dry material.

If saturated material is encountered during the construction of the County road(s) sub-base, it will be necessary to re-evaluate the design for these roads.

Findings:

The Permit Applicant has provided the information requested relative to the “to-be-reconstructed “ on backfilled spoil Kane County roads within the Coal Hollow Mine coal recovery area.

If Kane County cannot achieve the design standards necessary to ensure that all post-mining roads to be reconstructed on spoil will be stable, then the Permit Applicant must consider other road design specifications, in co-operation with Kane County.

The Permit Applicant has met the minimum regulatory requirements for the reclamation and reconstruction of public roads inside the proposed Coal Hollow Mine permit area.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

General

The Division, in the Task ID #3100 Master Technical Analysis identified the following deficiency during the preparation of that document;

“Prior to approval, the application must provide the following, in accordance with:

R645-301-830.140, Detailed Cost Estimate

*The Division needs the Stage 1, 2 and 3 costs broken out such that incremental bonds may be implemented for the coal mining area in accordance with the requirements of **R645-301-820.111, 820.112 through 820.133**, and in agreement with Alton Coal Development. Alton Coal Development must provide a detailed cost estimate, with supporting calculations for the following Coal Hollow areas:*

- 1) Demolition of the Facilities and Structures / Loadout as shown on Drawing 5-4.*
- 2) Reclamation costs for ponds 2 and 3, including backfilling and grading, resoiling and re-vegetating.*
- 3) Reconstruction of Robinson Creek*
- 4) Total Reclamation Costs for Stage 1, to include backfilling and grading, topsoiling and re-vegetation of the 69 acres associated with the mining area.*
- 5) Total Reclamation Costs for Stage 2, to include backfilling and grading, topsoiling and re-vegetation of the 68 acres.*

6) *Total Reclamation Costs for Stage 3, to include backfilling and grading, topsoiling and re-vegetation of the 99 acres.*

7) *These total costs must include reclamation costs for the final (or Stage 3 remaining pit) pit area depicted on Drawing 5-19.*

8) *Total Reclamation Costs for the Stage 1 excess spoil reclamation.*

The Permit Applicant responded in the following manner (Task ID #3371, received August 28, 2009):

"As written in the Mine and Reclamation Plan – Chapter 8, page 8-2, Section 830.140, ACD has requested that this information be supplied once an "approved permit and reclamation plan" is available. In contrast to underground mining operations where the bond amount is based primarily on surface facilities, the Coal Hollow Mine bond amount is based primarily on the details related to the mine and reclamation plan, which is yet to be approved by the Division."

ACD's request is based on R645-301-830.100, which states:

830.100. The amount of the bond required for each bonded area will:

830.110. Be determined by the Division;

830.120. Depend upon the requirements of the approved permit and reclamation plan.

The Permit Applicant provided detailed cost estimate sheets and a total bond amount estimate as part of the PAP submitted on January 24, 2008 (Task ID #2910).

There are 435 acres of proposed disturbance associated with the Coal Hollow Mine project.

The amount of bond necessary to remove all surface facility installations and reclaim all disturbance to pre-mining conditions was estimated at \$ 6,172,000 (estimate prepared by John T. Boyd Company).

Based on the Permit Applicant request, the Division will not require additional bond estimate information until the Permit Application is **APPROVED**. Alton Coal Development, LLC, is aware that the Division cannot issue a permit for the Coal Hollow Mine until an adequate bond is posted with the Division.

Findings:

Information provided in APPENDIX 8-1 of the initial PAP (Task ID #2910, received January 24, 2008) is adequate to meet the requirements of this section.

RECOMMENDATION:

The Permit Applicant, Alton Coal Development, LLC has adequately responded to all of the Engineering and Bonding and Insurance deficiencies identified in the Task #3100 Master Technical Analysis, (dated March 30, 2009).

This reviewer recommends that the Division approve the Mining and Reclamation Plan for the Coal Hollow Mine. Upon the posting of a reclamation bond, the amount of which is to be determined by the Division, the Division should issue a State of Utah surface mining permit.

O:\025005.COL\FINAL\WG3371\phh3371ALTON.doc